Thin Film Integrated Fuse: Quad Fuse Array

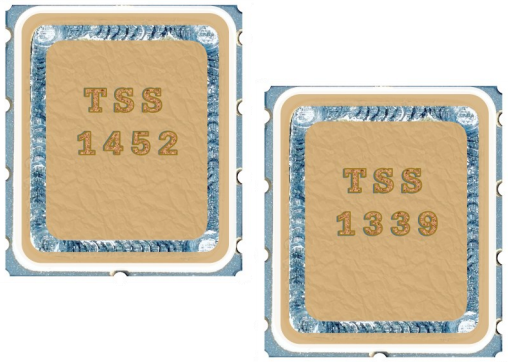
TSS1339 / TSS1452

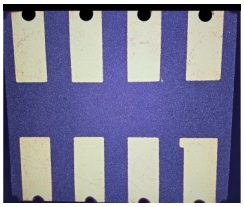
Product Brief

Quad Fuse Product Family

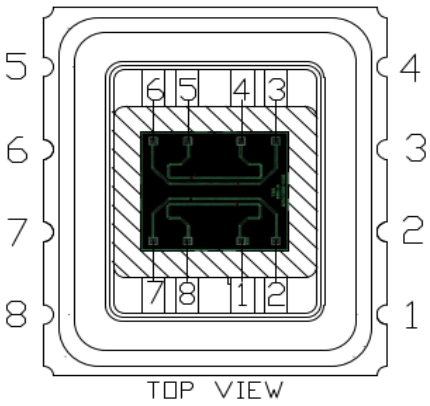
FEATURES:

- Thin film precision metal resistors
  - Four independent fusible links
- Surface mount device (SMD)
- Seam-welded metal lid
  - Clearance between fuse die and lid allows dispersion of fusible link material
- Silicon oxide layer protects die surface, with opening over each fusible link
- Standard silicon die attach in package cavity
- Wire-bonded connections from die to package

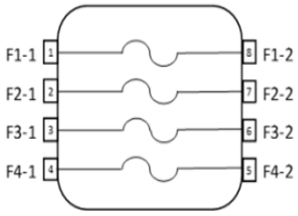




Internal Wiring Diagram



Quad Fuse Schematic



APPLICATIONS:

- Secondary circuit protection
- Circuit isolation
- One-shot devices
- Industrial electronics
- Telecommunication
- Medical equipment
- Hi-Rel circuits requiring stable fusing characteristics

PRODUCT DESCRIPTION:

TSS1452 is a quad array of precision thin film metal resistors that act as fusible links. The integrated fuse array is built on a semiconductor wafer process and is hermetically sealed in a low-profile ceramic leadless chip carrier (CLCC).

TSS1452 is designed for high-reliability, one-time fusing applications

MADE IN USA

TRUSTED Semiconductor Solutions™

RELEASED FEBRUARY 2026

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(763) 417-9900 / info@trustedsemi.com

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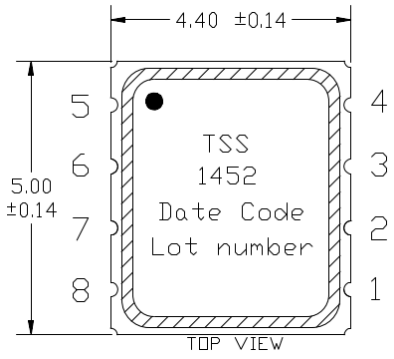
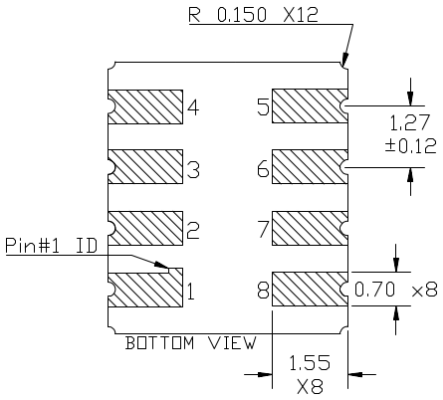


PRODUCT RELIABILITY TESTING PERFORMED:

- Gross leak check performed on all parts
- Electrical resistance measured on all fuses
- Wafer lot sample screening includes:
  - Hermeticity: Fine Leak testing
  - Solderability
  - Wire bond pull test
  - Langlie characterization

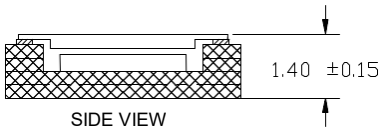


ASSEMBLY:

- Compatible with standard SMD reflow
- Nickel/gold-plated solder terminals
- Handle in ESD-safe environment

PART NUMBER	GRADE
TSS1339	Commercial
TSS1452	ITAR

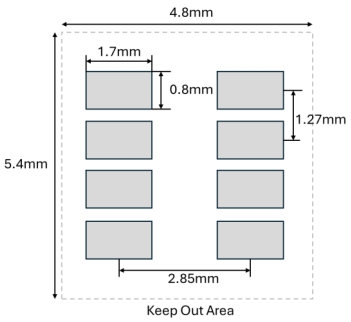
Dimensions in mm.



ELECTRICAL & STORAGE CHARACTERISTICS:

Parameter	Condition	Min	Typical	Max	Units
Resistance	25°C	-	7.5	-	Ohms
Characterized Fusing Voltage	25°C	-	4.5	-	V
Rated Current	25°C	-	0.6	-	A
Operating Temperature	-	-35	-	+60	°C
Storage Temperature	-	-55	-	+125	°C

PCB Land Pattern



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